

## [54] APPARATUS FOR DISCRIMINATING LINEARITY OF LINE SEGMENT IN IMAGE PROCESSING SYSTEM

[75] Inventors: Yoshikazu Sakaue; Kazuhiko Sumi; Keiji Nakajima, all of Hyogo, Japan

[73] Assignee: Mitsubishi Kenki Kabushiki Kaisha, Tokyo, Japan

[21] Appl. No.: 321,770

[22] Filed: Mar. 10, 1989

## [30] Foreign Application Priority Data

Mar. 10, 1988 [JP] Japan ..... 63-57765

[51] Int. Cl.<sup>5</sup> ..... G06K 9/46

[52] U.S. Cl. .... 382/24; 382/21

[58] Field of Search ..... 382/21, 22, 24, 25

## [56] References Cited

## U.S. PATENT DOCUMENTS

4,361,830 11/1982 Honma et al. .... 382/25

4,542,412 9/1985 Fuse et al. .... 382/56

4,718,013 1/1988 Shojima et al. .... 382/21  
4,771,474 9/1988 Takashima et al. .... 382/24  
4,878,249 10/1989 Mifune et al. .... 382/21

## OTHER PUBLICATIONS

"Computer Vision", Dana H. Ballard, Christopher M. Brown, Issued in 1982 by Prentice-Hall, Inc.

Primary Examiner—David K. Moore

Assistant Examiner—Jose L. Couso

Attorney, Agent, or Firm—Wolf, Greenfield &amp; Sacks

## [57]

## ABSTRACT

An apparatus and method for discriminating the linearity of a line segment in an image processing system consisting of elements for extracting and tracking a train of points from a high contrast portion of a video image and for determining whether the position of one of the points exceeds a predetermined threshold value representative of a condition which defines the end of the linearity of the train of points.

8 Claims, 7 Drawing Sheets

